

WHAT IS CLAIMED IS:

- 1 1. A method for internationalizing content of an electronic document comprising:
2 associating a predefined parameter with content in a source web page to be
3 translated; and
4 inserting entries corresponding to translations of the content in the source web
5 page into an indexable dictionary file,
6 wherein a dictionary driven stylesheet may be applied to the source web page in
7 order to retrieve a translation of a particular text string from the indexable dictionary file.
- 1 2. The method of claim 1, wherein the associating step comprises associating an
2 NLSID with textual content in the source web page to be translated, the NLSID being
3 associated with the textual content in markup language code supporting the source web
4 page.
- 1 3. The method of claim 1, wherein inserting entries comprises:
2 locating a root entry corresponding to the source web page;
3 inserting a sub-root entry corresponding to a term to be translated; and
4 inserting at least one translation entry as a sub-entry of the sub-root entry.
- 1 4. The method of claim 1, wherein the application of the dictionary driven stylesheet
2 comprises:
3 locating textual content having the predefined parameter associated therewith in
4 the source web page;
5 indexing into the dictionary file to find a root entry corresponding to the
6 predefined parameter;
7 indexing into sub-root entries to find an entry corresponding to the textual
8 content; and
9 indexing into children of the sub-root entries to find a translation entry for textual content.

1 5. The method of claim 4, wherein the step of indexing into the children of the sub-
2 root entries further comprises:
3 determining a target language; and
4 indexing into the children of the sub-root entry to find a child entry corresponding
5 to the target language.

1 6. The method of claim 4, wherein the step of indexing into the dictionary file
2 further comprises indexing into the dictionary file to find a root entry that matches an
3 NLSID associated with the textual content.

1 7. The method of claim 1, the method further comprising the steps of:
2 generating the indexable dictionary file with a markup language; and
3 generating the generic dictionary driven stylesheet with a markup language.

1 8. The method of claim 7, wherein the indexable dictionary file further comprises at
2 least one root entry corresponding to an NLSID associated with a portion of text to be
3 translated from the source web page, at least one sub-root entry corresponding to the text
4 to be translated, and at least one child sub-root entry corresponding to the available
5 translations for the portion of text.

1 9. The method of claim 7, wherein the dictionary driven stylesheet further comprises
2 at least one template match operation configured to copy all untouched nodes from a
3 source document to a destination document, and at least one template match statement
4 configured to translate text in the source document via access into the indexable
5 dictionary file.

1 10. The method of claim 1, wherein the electronic document further comprises a web
2 page.

1 11. The method of claim 1, wherein the stylesheet further comprises a generic
2 dictionary driven stylesheet that may be reused for various applications.

1 12. A method for translating text in an electronic document comprising:
2 inserting a predetermined parameter into a source code of the electronic
3 document, the predetermined parameter indicating that an associated portion of text is to
4 be translated;
5 inserting an entry representing a translation of the associated portion of text into
6 an electronic dictionary file; and
7 applying a dictionary driven generic stylesheet to the electronic document in order
8 to retrieve the translation of the associated portion of text.

1 13. The method of claim 12, wherein the step of inserting a predetermined parameter
2 comprises:
3 determining what portions of text are to be translated in a source document; and
4 associating an NLSID with the portions of text determined to be translated in the
5 source document, the NLSID being associated with the portions of text to be translated in
6 the source code of the source document.

1 14. The method of claim 12, wherein the source code further comprises a markup
2 language code set.

1 15. The method of claim 14, wherein the markup language code set further comprises
2 at least one of a hypertext markup language code set and an extensible markup language
3 code set.

1 16. The method of claim 12, wherein the step of inserting an entry into an electronic
2 dictionary file further comprises:
3 locating a root entry in the electronic dictionary file corresponding to the

4 predetermined parameter;
5 inserting a sub-root entry corresponding to the portion of text to be translated; and
6 inserting at least one sub-root child entry, wherein each sub-root child entry
7 corresponds to a translation of the portion of text in a particular language.

1 17. The method of claim 16, wherein the locating step further comprises locating a
2 root entry in the electronic dictionary file corresponding to an NLSID associated with the
3 portion of text to be translated.

1 18. The method of claim 12, wherein the step of applying a dictionary driven
2 generic stylesheet comprises:
3 determining at least one portion of text in a source document having the
4 predetermined parameter associated therewith;
5 searching in the electronic dictionary file to find a root entry corresponding to the
6 predetermined parameter;
7 searching in sub-root entries of the electronic dictionary to find an entry
8 corresponding to the portion of text to be translated; and
9 searching in children of the sub-root entries in the electronic dictionary to find a
10 translation entry for textual content.

1 19. The method of claim 18, wherein determining at least one portion of text having
2 the predetermined parameter associated therewith further comprises indexing into the
3 source code of an electronic document to locate text having an NLSID associated
4 therewith.

1 20. The method of claim 18, wherein searching in the electronic dictionary file to find
2 a root entry further comprises indexing into the electronic dictionary file with an NLSID
3 to find a root entry match.

1 21. The method of claim 18, wherein searching in children of the sub-root entries
2 further comprises indexing into the children of the sub-root entries with a preferred
3 language parameter to find a match.

1 22. A computer readable medium storing a software program that, when executed by
2 a computer, causes the computer to perform a method comprising:
3 associating a predefined parameter with content in a source web page to be
4 translated;
5 inserting entries corresponding to translations of the content in the source web
6 page into an indexable dictionary file; and
7 applying a generic dictionary driven stylesheet to the source web page, wherein
8 the application of the stylesheet operates to retrieve a translation of a particular text string
9 from the indexable dictionary file.

1 23. The computer readable medium of claim 22, wherein the associating step
2 comprises associating an NLSID with textual content in the source web page to be
3 translated, the NLSID being associated with the textual content in markup language code
4 supporting the source web page.

1 24. The computer readable medium of claim 22, wherein inserting entries comprises:
2 locating a root entry corresponding to the source web page;
3 inserting a sub-root entry corresponding to a term to be translated; and
4 inserting at least one translation entry as a sub-entry of the sub-root entry.

1 25. The computer readable medium of claim 22, wherein applying a generic
2 dictionary driven stylesheet comprises:
3 searching through the source web page to find textual content having the
4 predefined parameter associated therewith;
5 indexing into the dictionary file to find a root entry corresponding to the

6 predefined parameter;
7 indexing into sub-root entries to find an entry corresponding to the textual
8 content; and
9 indexing into children of the sub-root entries to find a translation entry for textual
10 content.

1 26. The computer readable medium of claim 25, wherein the step of indexing into the
2 children of the sub-root entries further comprises:
3 determining a target language; and
4 indexing into the children of the sub-root entry to find a child entry corresponding
5 to the target language.

1 27. The computer readable medium of claim 25, wherein the step of indexing into the
2 dictionary file further comprises indexing into the dictionary file to find a root entry that
3 matches an NLSID associated with the textual content.

1 28. The computer readable medium of claim 22, the method further comprising the
2 steps of:
3 generating the indexable dictionary file with a markup language; and
4 generating the generic dictionary driven stylesheet with a markup language.

1 29. The computer readable medium of claim 28, wherein the step of generating the
2 indexable dictionary file further comprises creating the indexable dictionary file, wherein
3 the dictionary file includes at least one root entry corresponding to an NLSID associated
4 with a portion of text to be translated from the source web page, at least one sub-root
5 entry corresponding to the text to be translated, and at least one child sub-root entry
6 corresponding to the available translations for the portion of text.

1 30. The computer readable medium of claim 28, wherein the step of generating the

2 generic dictionary driven stylesheet further comprises creating the generic dictionary
3 driven stylesheet, wherein the generic dictionary driven stylesheet includes at least one
4 template match operation configured to copy all untouched nodes from a source
5 document to a destination document, and at least one template match statement configured
6 to translate text in the source document via access into the indexable dictionary file.

1 31. A computer readable medium storing a software program that, when executed by
2 a processor, causes the processor to perform a method comprising:

3 inserting a predetermined parameter into a source code of the electronic
4 document, the predetermined parameter indicating that an associated portion of text is to
5 be translated;

6 inserting an entry representing a translation of the associated portion of text into
7 an electronic dictionary file; and

8 applying a dictionary driven generic stylesheet to the electronic document in order
9 to retrieve the translation of the associated portion of text.

1 32. The computer readable medium of claim 31, wherein the step of inserting a
2 predetermined parameter comprises:

3 determining what portions of text are to be translated in a source document; and

4 associating an NLSID with the portions of text determined to be translated in the
5 source document, the NLSID being associated with the portions of text to be translated in
6 the source code of the source document.

1 33. The computer readable medium of claim 31, wherein the source code further
2 comprises a markup language code set.

1 34. The computer readable medium of claim 33, wherein the markup language code
2 set further comprises at least one of a hypertext markup language code set and an
3 extensible markup language code set.

1 35. The computer readable medium of claim 31, wherein the step of inserting an entry
2 into an electronic dictionary file further comprises:
3 locating a root entry in the electronic dictionary file corresponding to the
4 predetermined parameter;
5 inserting a sub-root entry corresponding to the portion of text to be translated; and
6 inserting at least one sub-root child entry, wherein each sub-root child entry
7 corresponds to a translation of the portion of text in a particular language.

1 36. The computer readable medium of claim 35, wherein the locating step further
2 comprises locating a root entry in the electronic dictionary file corresponding to an
3 NLSID associated with the portion of text to be translated.

1 37. The computer readable medium of claim 31, wherein the step of applying a
2 dictionary driven generic stylesheet comprises:
3 determining at least one portion of text in a source document having the
4 predetermined parameter associated therewith;
5 searching in the electronic dictionary file to find a root entry corresponding to the
6 predetermined parameter;
7 searching in sub-root entries of the electronic dictionary to find an entry
8 corresponding to the portion of text to be translated; and
9 searching in children of the sub-root entries in the electronic dictionary to find a
10 translation entry for textual content.

1 38. The computer readable medium of claim 37, wherein determining at least one
2 portion of text having the predetermined parameter associated therewith further comprises
3 indexing into the source code of an electronic document to locate text having an NLSID
4 associated therewith.

1 39. The computer readable medium of claim 37, wherein searching in the electronic

2 dictionary file to find a root entry further comprises indexing into the electronic
3 dictionary file with an NLSID to find a root entry match.

1 40. The computer readable medium of claim 37, wherein searching in children of the
2 sub-root entries further comprises indexing into the children of the sub-root entries with a
3 preferred language parameter to find a match.

1 41. An apparatus for translating text in electronic documents, the apparatus
2 comprising a memory having a translation program stored therein, and a processor in
3 communication with the memory, wherein the processor is configured to execute the
4 program stored in the memory, the computer program being configured to:

5 determine at least one portion of text in a source document having the
6 predetermined parameter associated therewith;

7 search in an electronic dictionary file to find a root entry corresponding to the
8 predetermined parameter;

9 search in sub-root entries of the electronic dictionary to find an entry
10 corresponding to the portion of text to be translated; and

11 search in children of the sub-root entries in the electronic dictionary to find a
12 translation entry for textual content.

1 42. The apparatus of claim 41, wherein determining at least one portion of text having
2 the predetermined parameter associated therewith further comprises indexing into the
3 source code of an electronic document to locate text having an NLSID associated
4 therewith.

1 43. The apparatus of claim 41, wherein searching in the electronic dictionary file to
2 find a root entry further comprises indexing into the electronic dictionary file with an
3 NLSID to find a root entry match.

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- 1 44. The apparatus of claim 41, wherein searching in children of the sub-root entries
- 2 further comprises indexing into the children of the sub-root entries with a preferred
- 3 language parameter to find a match.

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